Mold: Quick Facts For Clinicians

Take Home Messages

- When clinical evidence suggests that environmental exposures to moisture and/or indoor mold may be affecting your patient, an environmental assessment may be helpful.
- The environmental assessment should focus on identifying sources of moisture and looking for mold. Most of the time, assessments may be performed by the patient.
- **Air sampling for mold is not recommended.**
- Moisture sources and visible mold should be eliminated. Porous materials that have remained wet for more than 24 hours (summer) to 48 hours (winter) should be discarded
- Advise your patient to contact their local health department for enforcement assistance.

The Basics

- Molds are living things that require water, a food source, and appropriate temperature to grow.
- Mold is everywhere and can survive in all climates. Every building in the world contains some mold.
- Spores are the reproductive unit. Individual spores are microscopic, very light, and most become airborne easily.
- Air currents transport the spores to other locations.
- Most mold spores come indoors via open doors, windows, mechanical ventilation, and by hitchhiking on our clothes, shoes, and pets.
- ✪ Finding mold spores indoors does not necessarily mean there is a problem. However, mold should not be actively growing indoors.
- ✪ Dead mold is still allergenic. This is why removal is recommended instead of simply painting over it.
- ✪ Multiple studies have found health effects in non-atopic patients, suggesting pro-inflammatory as well as allergic effects.

Sampling For Environmental Mold

- **Air sampling for environmental mold is not recommended*.** There is no scientific basis for interpretation relating to health risks.
- Subjective assessments for dampness or mold (visual and/or odor evidence) have the most consistently documented associations with respiratory or allergic disease.
- Mendell et al. state that “current evidence does not support measuring specific indoor microbiological factors to guide health-protective actions”. They further discuss the poor correlation between concentrations of culturable airborne microbes and health outcomes.[1]

*Hospital ORs, transplant units, and other areas where immunocompromised patients reside are exceptions.

Mold, Damp Indoor Environments, & Health Effects

- Mendell et al (2011)[1] reports and summarizes the findings of many individual studies as well quantitative meta-analyses on health effects related to exposure to indoor mold and moisture. Their conclusions are similar to those from prior comprehensive reviews [Institute of Medicine (2004)[2], World Health Organization (2009)[3]].
- While none found enough evidence to prove causality, there is evidence for consistent association between indoor dampness, visible water damage, visible mold, or mold odor and certain respiratory outcomes. Here is the latest information about the most common health outcomes[1]:

YES - Positive Evidence of Association ✓

- Allergic rhinitis
- Asthma exacerbation
- Asthma development
- Bronchitis
- Cough
- Dyspnea
- Eczema
- Respiratory infections
- Upper Respiratory Tract Symptoms
- Wheeze

Current Lack of Evidence of Association

- Acute idiopathic pulmonary hemorrhage in infants
- Airflow obstruction (in otherwise healthy persons)
- Cancer
- Chronic obstructive pulmonary disease
- Fatigue
- Gastrointestinal tract problems
- Inhalation fevers (non-occupational exposures)
- Neuropsychiatric symptoms
- Reproductive effects
- Rheumatologic and other immune diseases

[1] Mendell Mark J, Mirer Anna G, et al.: Respiratory and Allergic Health Effects of Dampness, Mold, and Dampness-Related Agents: A Review of the Epidemiologic Evidence. *Environ Health Perspect* 119:748–756 (2011).
[2] Institute of Medicine. Damp Indoor Spaces and Health. National Academies Press. Washington, DC. 2004.
[3] World Health Organization. WHO Guidelines for Indoor Air Quality: Dampness and Mold. Copenhagen. 2009.

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